

DEPARTMENT OF INDUSTRIAL RELATIONS
**COMMISSION ON HEALTH AND SAFETY
AND WORKERS' COMPENSATION**

1515 Clay Street, Room 901

Oakland, CA 94612

Telephone: (510) 622-3959

Fax: (510) 622-3265

Email: CHSWC@dir.ca.gov

Website: www.dir.ca.gov/chswc



DATE: January 30, 2006

TO: All Interested Parties

Christine Baker

FROM: Christine Baker, CHSWC Executive Officer

**CHSWC Invites Public Comment on
DRAFT CHSWC Report "Permanent Disability Schedule Recommendations"**

The Commission on Health and Safety and Workers' Compensation (CHSWC) is pleased to release its draft report on recommendations for the Permanent Disability Schedule for public comment. We request that comments be received by Wednesday, February 8, 2006. The report will be on the agenda for the CHSWC meeting on February 9 in Oakland.

"Permanent Disability Rating Schedule Recommendations" was developed by CHSWC staff in response to a request from Senate President pro Tem Don Perata and Assembly Speaker Fabian Nuñez. The Legislators requested information regarding a change in the California workers' compensation Schedule for Rating Permanent Disabilities effective January 1, 2005. They asked that CHSWC report to the Legislature on the impact of the change in the schedule as well as how the schedule could now be amended in compliance with Labor Code Section 4660(b)(2), which requires the use of findings from a specified RAND report and other available empirical studies of diminished future earning capacity.

Pursuant to SB 899, the Administrative Director (AD) of the Division of Workers' Compensation revised the schedule effective January 1, 2005. At that time, there was no satisfactory way to predict how the percentages of impairment evaluated under the AMA Guides would correspond to the reduction in injured workers' earning capacity, so the selection of adjustment factors has been controversial. As requested, this paper examines the impact of the revised schedule and recommends a way to fine-tune the schedule in compliance with SB 899. CHSWC recommends that revisions to the schedule be adopted effective July 1, 2006, and updated periodically thereafter, based on analysis of actual ratings that have been produced under the schedule and the most recent research on the earnings losses resulting from industrial injuries.

The draft report is available on the CHSWC website www.dir.ca.gov/chswc. A printed copy is available by contacting CHSWC by phone at (510) 622-3959; by fax at (510) 622-3265; or by email to chswc@dir.ca.gov.

Thank you for your continuing interest in our activities.

cc: CHSWC members

Victoria L. Bradshaw, Secretary, Labor and Workforce Development Agency

John Rea, Acting Director and Chief Deputy Director, Department of Industrial Relations

Carrie Nevans, Acting Administrative Director, Division of Workers' Compensation

The California Commission on Health and Safety and Workers' Compensation



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Permanent Disability Rating Schedule Recommendation

**Prepared at the Request of
Senate President pro Tem Don Perata
Assembly Speaker Fabian Nuñez**

CHSWC Members

**Angie Wei (2006 Chair)
Allen Davenport
Leonard C. McLeod
Alfonso Salazar
Kristen Schwenkmeyer
Robert B. Steinberg
Darrel "Shorty" Thacker
John C. Wilson**

Executive Officer

Christine Baker

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Introduction

Senate President pro Tem Don Perata and Assembly Speaker Fabian Nuñez requested information regarding a change in the California workers' compensation Schedule for Rating Permanent Disabilities effective January 1, 2005. They requested that the Commission on Health and Safety and Workers' Compensation (CHSWC) report to the Legislature on the impact of the change in the schedule as well as how the schedule could now be amended in compliance with Labor Code Section 4660(b)(2), which requires the use of findings from a specified RAND report and other available empirical studies of diminished future earning capacity.

Executive Summary

Thirty years after the 1972 National Commission on State Workers' Compensation Laws reported that permanent partial disability benefits are the most controversial and complex aspect of workers' compensation laws, issues of adequacy and equity of permanent partial disability benefits remain troublesome. California is in the midst of the biggest change ever attempted in its system for compensating permanent disabilities. Using data that did not exist when the latest reform was adopted, it is now possible to evaluate the effect of the changes and to fine-tune those changes to more accurately accomplish the state's public policy goals. This paper recommends a method to adjust disability ratings using empirical research to achieve greater equity, and this paper suggests that consideration be given to public policy issues of benefit adequacy and affordability.

Background

The California Constitution authorizes the Legislature to create a workers' compensation system that compensates employees for injury or disability sustained in the course of employment. Since at least 1917, compensation for permanent disability has been determined according to the percentage of permanent disability calculated according to a medical evaluation and a Schedule for Rating Permanent Disabilities. Both the schedule and its criteria for medical evaluation were unique to California. The schedule was refined from time to time and certain interpretations evolved, but the schedule was fundamentally unchanged until 2005. The benefits payable for a given percentage of permanent partial disability are calculated as a number of weeks at a weekly benefit amount. The number of weeks of indemnity payments depends on the percentage rating of the permanent disability. The weekly amount of the indemnity payments depends on the employee's earnings at the time of injury, subject to a minimum and a maximum. From time to time the Legislature has amended both the method of converting a percentage to a number of weeks and the minimum and maximum weekly amounts.

In an individual case, the worker's disability was evaluated by a doctor, a percentage disability rating was developed by using the rating schedule, and a the number of weeks of permanent partial disability benefits was calculated based on the percentage rating. The weekly benefit amount could depend on the worker's pre-injury wages, but most workers qualified for the

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maximum weekly rates allowed for their date of injury (\$200 per week for most injuries in 2004, for example).

2004 Reforms

The California permanent disability rating system came to be regarded as costly, inequitable, inconsistent, and prone to disputes. Workers who sustained similar earnings losses for different types of injuries received different compensation. Comparing shoulder and knee injuries, for example, the PD benefits replaced only about half as much of the average losses for shoulder injuries as for knee injuries. The same worker could receive widely different disability evaluations depending on who selected the evaluating physician. With the enactment of Senate Bill 899 in 2004, the Governor and the Legislature intended to enact a permanent disability rating system that would promote “consistency, uniformity, and objectivity.”¹ Depending on how it is implemented, SB 899 could “lead to greater equity in benefits for injured workers and minimize unnecessary disputes between injured workers and their employers.”² SB 899 made changes to:

- The goal of the rating schedule, giving consideration to diminished future earning capacity in place of consideration to diminished ability to compete in an open labor market (Section 4600(a)), as well as promoting consistency, uniformity and objectivity (Section 4600(d)),
- The criteria for medical evaluations, using the *AMA Guides to the Evaluation of Permanent Impairment*, fifth edition (*AMA Guides*) in place of the often subjective criteria traditionally used in California (Section 4600(b)(1)),
- The adjustment factors to be included in the Schedule for Rating Permanent Disabilities, specifying that diminished future earning capacity be a numeric formula based on average long-term loss of income according to empirical studies (Section 4600(b)(2)),
- The apportionment of disability between industrial injuries and other causes when a disability is caused by the combination of two or more injuries or diseases, such as a knee strain with pre-existing arthritis (Sections 4663 and 4664),
- The number of weeks of permanent disability benefits payable for each percentage point of permanent partial disability, reducing payments by up to 15 weeks on all awards of less than 70 percent permanent partial disability (Section 4656(d)(1)),
- The dollar amount of weekly permanent disability benefits depending on whether the employer offers to continue to employ the permanently disabled worker, if the employer has 50 or more employees (Section 4656(d)(2) and (d)(3)).

The schedule is just part of a complex system that determines the amount of individual PD awards as well as the system-wide cost of PD benefits. Other components include the number of weeks of benefits payable for a given rating, the weekly benefit amount, and the criteria for

¹ Labor Code Section 4660(d). See Attachment A for the full text of the section. All further statutory references are to the California Labor Code unless otherwise specified.

² Reville, et al., 2005, p. ix.

compensability of a disability. All of these were affected by SB 899, and the selection of goals for the rating schedule requires consideration of this context.

Impact of the 2005 Schedule for Rating Permanent Disabilities

The Legislature directly enacted many of the changes described above, but it delegated the task of revising the Schedule for Rating Permanent Disabilities to the Administrative Director (AD) of the Division of Workers' Compensation. The AD revised the schedule effective January 1, 2005. At that time, there was no satisfactory way to predict how the percentages of impairment evaluated under the AMA *Guides* would correspond to the reduction in injured workers' earning capacity. As requested by the Legislature, this paper examines the impact of the revised schedule and recommends a way to further revise the schedule in compliance with SB 899.

The first year of experience under the 2005 revision of the Schedule for Rating Permanent Disabilities demonstrates that the 2005 schedule reduces permanent disability benefits by more than 50% compared to the pre-2005 schedule, apart from the other changes made by SB 899. This reduction is observed by comparing the ratings in the population of cases rated under the 2005 schedule with the ratings for a similar population under the pre-2005 schedule. These cases provide a valid measure of the performance of the system, and because it is unlikely that the severity of injuries or the economic consequences to injured workers changed when the new schedule took effect, this reduction is due to the rating schedule itself. The dollar values of the awards are calculated by applying the 2005 laws to both the 2005 schedule ratings and the pre-2005 comparison ratings, so the 50% reduction is entirely due to the rating schedule.

Revision of the Schedule Using Empirical Data to Achieve Policy Goals

Without giving up any of the reforms enacted by the Legislature, it is possible to use the experience gained under the 2005 schedule to fine-tune the schedule. Revisions to the schedule can be adopted effective July 1, 2006, and updated periodically thereafter, based on analysis of actual ratings that have been produced under the schedule and the most recent research on the earnings losses resulting from industrial injuries.

The adoption of the AMA *Guides* is expected to improve equity among workers who sustain similar injuries so that they will consistently receive similar benefits regardless of who conducts the medical evaluation. This paper presents a method to further improve equity so that workers who sustain similar losses will consistently receive similar benefits regardless of which part of the body is injured. A uniform relationship between ratings and earnings loss regardless of type of injury is one aspect of equity recommended by the RAND report. (Reville et al, 2005.)

The more vexing problem is adequacy. It has been stated that compensation benefits should, on average, replace two-thirds of the wages lost as a result of a compensable injury.³ In practice,

³ Reville et al. (2005) page 14, citing Hunt, H. Allan, ed., *Adequacy of Earnings Replacement in Workers' Compensation Programs: a Report of the Study Panel on Benefit Adequacy of the Workers' Compensation Steering*

states arrive at widely varying replacement rates depending on each state's solution to the tension between adequacy and affordability. When the 2005 schedule was adopted, its effects were not entirely foreseeable. The proposed method for revising the schedule will give policymakers the opportunity to choose the desired balance of adequacy and affordability for California. Policymakers can now make an informed choice of whether and how much replacement rates will be changed from the pre-2005 levels as a consequence of the schedule, apart from the other changes enacted in SB 899.

Terminology and Mechanics of Rating

Any discussion of revising the Schedule for Rating Permanent Disabilities requires some terminology and some understanding the mechanics of the schedule. See Attachment B for words that have special meaning in this discussion. The schedule prescribes the steps to calculate a permanent disability (PD) rating,⁴ expressed as a percentage, based on a medical evaluation of impairment.⁵ Pursuant to SB 899, the calculation begins with a whole person impairment (WPI) percentage established by a physician. As adopted by the AD, the 2005 schedule⁶ assigns each type of injury (part of body) to one of eight future earning capacity (FEC) factors in the range of 1.100000 to 1.400000. The WPI is multiplied by the assigned FEC factor. The result is further adjusted upward or downward according to the worker's occupation and the worker's age at the time of injury. The result is the adjusted disability rating.

Apportionment may be applied to reduce the final rating if the disability is partly caused by a pre-existing injury or other cause in addition to the industrial injury. After SB 899, apportionment now appears to affect at least 11% of all permanent disability ratings. Apportionment is not directly controlled by the schedule and it is outside the scope of this paper. The ratings discussed in this paper are considered without apportionment.

Committee, National Academy of Social Insurance, Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research, 2004.

⁴ Synonyms in common use include "final rating," "adjusted rating," "disability rating," "PD rating," or simply "rating." The disability rating is distinct from the impairment rating. See Attachment B.

⁵ As used in this context, "impairment" is synonymous with "whole person impairment," ("WPI"). The WPI is expressed as a percentage, and it may also be called the "impairment rating." See Attachment B.

⁶ For convenience, we refer to the schedule adopted January 1, 2005, as the 2005 schedule. By statute and a WCAB interpretation, it is also applicable to certain cases that arose prior to January 1, 2005, although that interpretation is not universally accepted. The 2005 schedule is available at <http://www.dir.ca.gov/dwc/PDR.pdf>. The schedule may be called the Permanent Disability Rating Schedule, or "PDRS."

CHSWC Findings and Recommendations

CHSWC finds:

1. At the time the 2005 schedule was adopted, adequate empirical studies did not exist to permit accurate calculation of the relationship between impairments evaluated according to the AMA *Guides* and diminished future earning capacity.
2. The 2005 schedule has reduced average permanent disability awards by more than 50%, independently of all the other reforms enacted by SB 899. (See Attachment E.)
3. Revisions of the schedule can be formulated immediately and revised periodically using a combination of:
 - a. Analysis of the distribution of ratings obtained under the current schedule,
 - b. Data and findings from the RAND interim report *Evaluation of California's Permanent Disability Rating Schedule* and additional empirical studies as described in Labor Code Section 4660, and
 - c. A public policy decision on the overall goal of the permanent disability rating schedule.
4. The age adjustment in the existing schedule is not empirically valid, and it should be either replaced by an empirically supported adjustment or removed entirely.

In this paper, CHSWC recommends:

- Revision of the rating schedule to preserve the objectivity attained under SB 899 while improving the equity across different types of injuries and more nearly reaching the state's goal for balancing adequacy of benefits for injured workers and affordability of the program for employers.
- Revision of the schedule to be effective July 1, 2006.
- A method to formulate new FEC factors for each type of injury based on average earnings losses and on observed impairment ratings, with the new FEC factors to be adopted in the revised schedule in place of the eight FEC factors in the 2005 schedule.
- A policy decision on the desired balance between adequacy of benefits and affordability of the program, with the resulting overall goal to be incorporated into the formulation of the new FEC factors (see pages 9-10).
- A separate method to determine the FEC factor for rating psychiatric disabilities (see page 17).
- A change to the age adjustments to conform to empirical evidence (see page 17).

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- Amendment of the Labor Code to make the schedule conclusive evidence of the percent of PD with limited exceptions (see page 19).
- Adoption of a plan for continued monitoring of the impairment rating data which are used in the calculation of FEC factors.
- Revision of the FEC factors in the schedule bi-annually in response to any changes in the observed distribution of impairment ratings.
- Further study of earnings losses in relation to impairment ratings.
- Revision of the FEC factors when new studies establish updated or improved estimates of average earnings losses.

Next steps to be taken to carry out these recommendations are:

1. Determine the appropriate level of overall ratings as a matter of public policy.
2. Formulate the revised FEC factors using currently available data and incorporating the policy level decision from step 1.
3. Begin the process to revise the schedule, either administratively or legislatively, in time to become effective July 1, 2006.
4. Begin the legislative process to make the schedule conclusive evidence of the percentage of PD subject to specified exceptions.
5. Establish ongoing monitoring and analysis of the distribution of impairment ratings in cases rated by the Disability Evaluation Unit (DEU).
6. Conduct a study of earnings losses correlated with impairment ratings.
7. Revise the schedule bi-annually with the latest available information on average impairment ratings and corresponding average percentages of earnings losses.

Costs and Interplay of Disability Ratings, Weeks of Benefits, Weekly Benefit Amounts, and Compensability

SB 899 affected all of the components that determine both the amount of PD compensation payable in a particular case as well as the system-wide cost of the PD benefit. The schedule is just one of those components. The amount of compensation payable for an individual permanent disability is determined by the PD rating, the number of weeks of benefits payable for that rating, and the weekly benefit amount. The system-wide cost of PD compensation is determined by all of these elements combined with the policies that determine compensability.

- Compensability of PD (but not compensability of the underlying injury for purposes of medical treatment or temporary disability) was restricted by the adoption of the *AMA Guides*. Subjective disabilities and work restrictions that were compensable as permanent disabilities under the former schedule will often receive zero impairment ratings under the *AMA Guides*. For example, the *Guides* give no impairment rating for back pain without objective evidence of impairment or for a chronically dislocating shoulder without a measurable loss in range of motion. The system-wide cost reductions from the “zeros” have been estimated from 7% to 30% of all benefit dollars.
- Apportionment of permanent disability is another aspect of compensability, as apportionment determines what part of the disability is compensable when there are multiple contributing causes. In one of the first cases applying the new law, a 53% knee disability was apportioned one-half to preexisting degenerative arthritis and one-half to an injury when the employee fell at work. The reduction in system-wide PD benefits due to the revised law of apportionment was initially estimated at 3%, but early research is placing the reduction at 5% or greater.
- Weekly benefits amounts are two-thirds of an employee’s average weekly wage up to a maximum amount. The maximum rate was raised to \$270 per week for injuries after January 1, 2005, as a result of Assembly Bill (AB) 749 passed in 2002. SB 899 introduced a differential of plus or minus 15% in the weekly amount for most employees, depending on whether the employer makes a qualifying offer of return to work. (Employers of fewer than 50 employees are excluded.) This return-to-work (RTW) incentive is projected to reduce costs by 3% (WCIRB estimate) because a majority of injured workers already return to the at-injury employer and SB 899 gives both parties added incentive to return the employee to the workplace.
- The number of weeks of benefits payable for a given rating was reduced for most awards by SB 899. Fewer weeks of benefits are payable for each percentage point below 15 and more weeks are payable for each point over 70. Every PD award includes some number of percentage points below 15, while few PD awards reach 70%. The net effect of the changes in weeks, analyzed apart from any of the other changes made by SB 899, was a reduction of approximately 8% to 10% of system-wide PD costs.

Thus, it appears that there are substantial savings (or benefit reductions) due to zeros, apportionment, return-to-work incentives, and the schedule of weeks of benefits, all of which are

distinct from the rating schedule. Ongoing study of the performance of the schedule indicates that the 2005 revision of the schedule reduced overall benefits by approximately 51% in addition to all of the reductions described above. Each of these reductions was estimated for the effect of the individual change. The combined effect is not simply additive or even cumulative because the interactions are complex. For example, a 40% reduction in the average rating could produce a 50% reduction in the average award, depending on how the awards are distributed in severity. While public policy and the “bottom line” for stakeholders must consider all these components and their interactions, this paper is concerned only with revisions to the schedule.

Recommended Method for Developing Revisions to the Rating Schedule

The schedule prescribes the steps to calculate a PD rating. In the schedule adopted January 1, 2005, the calculation begins with a whole person impairment (WPI) percentage established by a physician in accordance with the *AMA Guides*. The 2005 schedule assigns each type of injury (part of body) to one of eight future earning capacity (FEC) factors in the range from 1.100000 to 1.400000. The WPI is multiplied by the assigned FEC factor. The result is further adjusted upward or downward according to tables in the schedule based on the employee's occupation and age at the time of injury.⁷ The result is the final disability rating. CHSWC recommends a method to formulate different FEC factors for a revised schedule while retaining the basic structure of the 2005 schedule. The age adjustment will be discussed separately.

CHSWC recommends that the FEC factors used in the schedule should be formulated by dividing the average proportional earnings loss by the average WPI for each type of injury, with further modifications as discussed in this paper. The most current information on average proportional earnings loss is shown in the RAND reports cited in the Bibliography.⁸ The most current information on average WPI is obtained from the ongoing analysis of DEU ratings.⁹ CHSWC recommends that the formulation of the FEC factors be regularly updated with continuing empirical research. This paper will explain the data that would be used in the formulation and describe an exception for psychiatric disability rating.¹⁰ The new set of factors would be substituted in place of the eight FEC factors that are in the 2005 schedule. Instead of assigning each of the 22 types of injury to one of eight FEC factors as in the 2005 schedule, it will be possible to separately formulate FEC factors for each of the common types of injury (accounting for over 90% of all injuries). The purpose of the recommended method is to achieve a consistent ratio between ratings and proportional earnings losses so that workers with similar earnings losses will receive similar ratings regardless of the type of injury.

One more step is required to implement a public policy decision. The first step of the calculation recommended above (average proportional earnings loss divided by average WPI) would lead to

⁷ The pre-2005 California schedule used a “standard rating” percentage corresponding to the disability described by a physician according to a rating system that included objective and subjective factors and work preclusions. The standard rating was then adjusted upward or downward according to tables in the schedule based on the employee's occupation and age at the time of injury.

⁸ See excerpt showing proportional earnings losses, Attachment D.

⁹ Attachment E.

¹⁰ Psychiatric injuries are discussed separately. Unless otherwise indicated, references in this paper to “each” or “all” types of injuries exclude psychiatric injuries.

average percentage ratings of PD that are equal to the average percentages of proportional earnings loss. Such a 1 to 1 ratio between ratings and proportional earnings losses may or may not reflect the intended public policy, as discussed in the following section. The new FEC factor for each type of injury should include a modification to achieve the overall public policy choice, so the calculation becomes:

$$\frac{(\text{average proportional earnings loss for type of injury}) * (\text{overall public policy modification})}{(\text{average WPI for type of injury})}$$

Policy Goals Remain Controversial

Some of the public policy goals of SB 899 are undisputed, while some remain controversial. The Legislature directed the AD to revise the schedule, saying that the new schedule “shall promote consistency, uniformity, and objectivity.” Other significant changes include:

- Adoption of *AMA Guides* in place of the unique-to-California system of standard disabilities previously in effect.
- Consideration for the injured employee’s diminished future earning capacity, in place of consideration for the employee’s diminished ability to compete in an open labor market.
- Definition of diminished future earning capacity to mean a numeric formula based on empirical data and findings that aggregate the average percentage of long-term loss of income resulting from each type of injury for similarly situated employees, based on specified research.

By adopting the *AMA Guides* as the starting point for a rating calculation, the Legislature substantially limited ratings for subjective disabilities that often have no ratable impairment under *AMA* criteria. Regardless of what adjustment factors are applied by the schedule, the zeros will remain zeros. The only cases that remain ratable are cases with impairments recognized under the *AMA* criteria.

By requiring consideration of diminished future earning capacity, as defined by statute, the Legislature supported a consistent ratio between ratings and diminished future earning capacity across different types of injury. In the PD study by RAND, the ratios of ratings compared to proportional earnings losses were shown to be inconsistent across different types of injuries. The Legislature specifically referred to that study in SB 899. The proportional earnings loss findings in the RAND study are the diminished future earning capacity numbers required by SB 899.

The more controversial goal is whether the consistent ratio should be a ratio that maintains, increases, or decreases the average rating for cases that remain ratable. For example, the RAND study found that the average ratio of ratings over proportional earnings losses was 1.09 under the pre-2005 schedule. To maintain the same average rating for cases that remain ratable while re-ordering the ratings to obtain a uniform ratio for all types of injuries, the calculation of the new FEC factors would require an additional multiplier of 1.09. To maintain the same average rating as the 2005 schedule while re-ordering the ratings to obtain a uniform ratio for all types of

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injuries, the additional multiplier would be approximately 0.55. (More exact modeling of the weighted distributions may refine that estimate.) While any multiplier could be inserted into the calculation, some of the choices that may be considered are:

- A ratio of 1 (i.e., 1 to 1) would mean that the average percentage disability rating is equal to the average percentage of earnings loss.
- A ratio of 1.09 between average percentage disability rating and the average percentage earnings loss would produce average ratings equal to the average pre-reform ratings for the cases that are still ratable under the more stringent AMA criteria.
- A ratio of 0.55 between average percentage disability rating and the average percentage earnings loss would maintain approximately the same average rating as the 2005 schedule currently in effect.
- Some other ratio may achieve some other balance among benefit adequacy, affordability, and secondary consequences.

CHSWC recommends that the public policy be discussed and decided. The broader issues include adequacy of benefits for injured workers and affordability of the program for employers. The most generally recognized standard of adequacy is that benefits should replace two-thirds of average earnings losses. (Reville et al., 2005, page 14.) Studies have shown that California did not meet this target on the average and over the long term due to poor return-to-work rates, but California sometimes exceeded the target for workers who returned to their former employers following their injuries. Under SB 899, benefits will be more accurately targeted to the workers who need them because of the plus-or-minus 15 percent change in weekly benefit payments based on an offer of return to work for employees of larger employers. It appears that California would not meet the two-thirds standard on average even without the 50% reduction caused by the 2005 schedule. Accordingly, an argument may be made for maintaining the overall average level of ratings that existed under the pre-2005 schedule while redistributing the ratings to achieve greater equity, consistency, and objectivity. On the other hand, cost savings were a clear motivation for SB 899, and the goals for adequacy cannot be adopted without weighing the cost of the program to employers. Because comparison with other states is one potential factor in that policy decision, CHSWC has conducted a survey of the compensation payable in nine other states for two hypothetical cases.¹¹ Only limited inferences can be drawn from such a limited survey, but the results suggest that the 2005 schedule places California significantly below the majority of states surveyed with respect to compensation payable for the “typical” back injury example and slightly higher for the “severe” example. Once legislative intent, cost, replacement rates, comparison to other states, and other factors have been considered and a public policy choice is made, that choice can be implemented in the schedule, at least in part, by formulating FEC factors that produce the desired ratio between disability ratings and diminished future earning capacity. CHSWC recommends that an overall ratio be chosen that will reflect a policy decision and that the FEC factors for each type of injury be formulated to include that overall ratio as described above.¹²

¹¹ Attachment G.

¹² Illustrations of FEC factors formulated pursuant to the CHSWC recommendation, including the effect of three options for the overall public policy choice, are shown in Attachment H.

When to Revise the Permanent Disability Rating Schedule

CHSWC maintains that there is adequate data to begin revising the schedule immediately. It may be argued that waiting for more data would allow the calculations to become more accurate. CHSWC maintains that an immediate revision of the schedule will enable California to more nearly meet its policy goals and will not preclude further revisions as more accurate calculations become possible with additional data.

If a revision is adopted by the AD under the existing authority of Labor Code Section 4660, it will apply to injuries occurring on and after the effective date of the revision.¹³ The usual rule, retained in Section 4660(d), is that revisions are applicable to injuries occurring on and after the date the revisions are adopted. The schedule adopted January 1, 2005, is applicable to many injuries that occurred prior to the adoption date, but that is due to a one-time legislative exception provided by SB 899. (This interpretation is still unsettled. One trial judge recently held that the 2005 schedule does not apply to any injuries occurring prior to 2005.) CHSWC recommends that the revised schedule be applicable to injuries occurring on and after the effective date of the revision without another legislative exception to the usual rule. The reasons for this choice are efficient administration of claims, prevention of tactical maneuvering to manipulate individual ratings, and predictability of costs for purposes of insurance ratemaking.

CHSWC recommends that the revision be published by March 2006 and become effective July 1, 2006, so that the changes can be taken into account in the insurance rate-making process for the premium rate changes that become effective July 1, 2006.

Adequacy of Rating Data

An adequate set of data is available to begin the process so a revision of the schedule can become effective July 1, 2006. For these purposes, an adequate set of data is a set of (1) summary ratings of single-impairment cases, (2) with average whole-person impairment (WPI) ratings for each type of injury, (3) in which the standard error is less than one half a percentage point for the types of injury that encompass at least 90% of all injuries. Each of these criteria will be explained.

1. Summary ratings are the most consistent measure of system behavior.

Summary ratings are used for two reasons. First, proportional earnings loss data are available only for workers who received summary ratings. There are no data available on the percentage of proportional earnings loss for workers who received consultative ratings. Future research may include represented cases, but applicable data on those cases has not been collected yet.¹⁴

¹³ See subdivision (d) of Labor Code Section 4660, in Attachment A.

¹⁴ The DEU issues summary ratings on the reports of treating physicians and the reports of QMEs selected from randomly assigned panels when the employee is not represented by an attorney. The DEU issues consultative ratings when an employee is represented by an attorney. (8 Cal. Code of Regs. 10160, 10166.) Berkowitz and

Second, the cross-section of cases that appear in summary ratings is expected to be substantially the same under the new schedule as it was under the pre-2005 schedule. These cases, unlike consultative ratings, are less subject to the influence of any changing litigation strategies because attorneys are not involved.¹⁵ Summaries are issued in unrepresented cases whenever an employee obtains a panel qualified medical evaluator (QME) report or a treating physician's report on PD, so there is little opportunity for anyone to selectively keep these cases from the DEU. Therefore, the flow of summary ratings through the DEU is likely to continue as cases reach maximum medical improvement, generally unaffected by legal strategies. It is still possible that the selection is influenced by the strategies of some sophisticated workers and some physicians, but the likelihood and opportunities for maneuvering are far more limited in cases receiving summary ratings. The sample of cases obtaining summary ratings under the 2005 schedule is expected to be comparable to the sample of cases that received summary ratings in the PD study by RAND.

Consultative ratings slightly outnumber summary ratings. In the first 3407 ratings, 47% were summaries and 53% were consults. Consult-rated cases tend to be rated higher than summary-rated cases, with average ratings of 17.62% and 11.28%, respectively, but the percentage reduction in observed ratings under the 2005 schedule compared to the pre-2005 schedule is very similar at 40% reduction for both types, give or take a tenth of a percent. Although the analysis is limited to summary ratings for the purpose of calculating new FEC factors, both groups appear to be similarly affected by changes in the rating schedule.

Single-impairment cases are those where the impairment is confined to one part of the body. The effect of separate impairments cannot readily be identified in multiple-impairment cases. RAND observed that about 85% of summary ratings were single-disability ratings. (Reville, 2005, page 45.) For this purpose, the terms "single impairment" and "single disability" are equivalent. The RAND findings of proportional earnings loss were based on single-disability cases, so it is appropriate to use the same type of cases for the WPI figures that will be used to formulate new FEC factors using those earnings loss findings.

2. Adjustment factor will be calculated for each type of injury.

In the 2005 schedule, there are 22 types of injury, each assigned to one of eight adjustment factors in the range from 1.100000 to 1.400000. Three regions of the spine (cervical, thoracic, and lumbar) are all assigned to the same adjustment factor, and until more precise data are

Burton (1987) estimated proportional earnings losses for California workers who received advisory ratings and formal ratings, but those are not comparable to summary ratings and consultative ratings. Formal ratings were, and still are, issued only upon instructions from a judge when a permanent disability rating issue has been submitted for judicial determination, so they tend to reflect the most contentious and possibly the most severe injuries. The 1980s category of advisory ratings would now be divided into summary ratings and consultative ratings, depending on whether the employee is represented by an attorney.

¹⁵ The selection of reports rated as consults could be affected by changes in attorney strategy in response to SB 899 and by changes in statute that require represented parties that cannot agree on an Agreed Medical Evaluator (AME) to use the QME process. It has been suggested that there was a rush to maneuver cases so they would receive PD ratings under the old schedule before January 1, 2005. It has also been suggested that since January 1, 2005, attorneys are now holding back the more severe cases in the hope of obtaining a more liberal rating environment.

available, the spine will be treated as one “type.” This leaves 20 types. CHSWC proposes that a new adjustment factor be calculated for each type of injury. Sufficient data have already accumulated to formulate more accurate FEC factors for most types of injury. A few rare types of injury, encompassing less than 3% of all cases, will still lack sufficient data to permit any meaningful calculation of their FEC factors. Any type of injury having fewer than some minimum number of observations, such as ten observations for the first revision of the schedule after 2005, should be combined in the “other” type. Consigning an injury type to “other” means that the resulting FEC factor will probably produce less accurate ratings for that type than for most injuries, but greater accuracy is simply not possible using empirical methods. Fortunately, those “other” injuries are the least common and, despite their importance to individual injured workers, they will have minimal effect on the system as a whole. One type of injury, psychiatric, is rated so differently from the others that it should be omitted from the averages. The adjustment factor for psychiatric injuries will be discussed separately.

3. Standard error determines the required sample size.

“Standard error” can be used to evaluate the minimum sample size to obtain valid information. The standard error of a sample of size n is the sample’s standard deviation divided by the square root of n . This measurement allows us to determine the required sample size depending on the variability of the data; if the cases are widely scattered, a larger sample is needed, but if they are tightly clustered, a smaller sample is adequate.

CHSWC recommends that the sample size is adequate to proceed with the revision of the schedule when the average WPI can be calculated with a standard error of less than 0.50 for enough types of injury to encompass at least 90% of all injuries. Already, this threshold has nearly been reached with the ratings reported through October 17, 2005. In that data, six types of injuries have large enough samples to obtain standard errors of less than 0.50. Those six types (spine, hand/fingers, shoulder, knee, wrist, grasping power) encompass over 85% of all injuries. Once the DWC releases the rating data for the months since October, the types of injuries that have reliable averages for WPI will encompass over 90% of all injuries.

Validity of Early Sample

This section addresses specific questions and challenges raised about making adjustments to the new schedule based on the initial claims submitted to the DEU. The following material is therefore largely duplicative, but is presented in a way that is intended to respond more directly to potential concerns about this proposal.

The fundamental assumption of the methodology in this paper is that the severity of injuries occurring every day throughout California did not change when the schedule changed. From that assumption, it follows that the relationship of ratings to earnings losses can be calculated using rating experience under the new schedule and earnings loss data collected under the pre-2005 schedule.

Observers may question the reliance on the first ratings to emerge from the DEU:

- “All the serious cases are being held out from DEU ratings.” As explained in connection with the use of summary ratings, there is little opportunity to selectively withhold certain kinds of cases from the summary rating process. When the unrepresented employee’s condition becomes permanent and stationary, the case proceeds to an evaluation and the medical report is sent to the DEU. Adjusters might try to settle out some cases without waiting for ratings, but there is no reason to believe that this is done in a consistent pattern that would skew the sample.
- “Hardly anything is getting rated; everything is being settled.” The number of ratings has been small because of the DEU’s backlog, but significant numbers of ratings are now showing up. In unrepresented cases, the only way for a case not to be rated is for the adjuster and the employee to agree to settle without obtaining a QME report or even a DEU rating on a treating physician’s report. There is no reason to believe that characteristics of cases being settled without rating have changed.
- “These early cases are too new to be representative.” It is a fact that the longer the time from the date of injury to the date of rating, the higher the average rating tends to be. The 2005 schedule is not limited to recent injuries, however. A substantial number of more mature cases have also received ratings under the 2005 schedule. CHSWC recommends adjusting the calculation to reflect the difference in average severity based on the difference between the average age of the cases being rated under the 2005 schedule and the average age of cases rated under the prior schedule. (See Attachment F.)
- “Ratings are going to change as people learn to work the system.” This concern has been expressed from both sides. Employee representatives fear that employers will take over the medical evaluation process through medical provider network (MPN) physicians. Employee representatives also fear that physicians will rate more conservatively as they become more accustomed to the *AMA Guides*. (Most errors are on the high side, according to AMA experts.) Employers fear that attorneys and physicians will learn loopholes and tactics to increase the ratings. CHSWC’s reply to these concerns is three-fold. First, AMA ratings are probably more objective and less vulnerable to evaluator bias than the old system. Second, decisions must be based on available data. Third, this revision is only temporary. An integral component of CHSWC’s recommendation is that the schedule should be regularly updated with adjustment factors recalculated using the latest available data. In this way, the schedule will be self-correcting to neutralize trends in rating behavior.

Validity of Earnings Loss Data

The percentage of proportional loss of earnings for each type of injury is required for the proposed calculation of adjustment factors. These percentages were reported by RAND in a report to the Division of Workers' Compensation (DWC) in December 2004. (Seabury, et al.) The findings are based on a multi-year research project with a final report issued in 2005. (Reville, et al, 2005.) This final report is the successor to the Interim Report cited in Labor Code Section 4660(c). Reliance on these findings is mandated by Labor Code Section 4660, as amended by SB 899, which cited the interim report.¹⁶

The findings in the 2004 RAND report (excerpted in Attachment D) indicate the proportional earnings loss of injured employees as compared to their uninjured peers. By tracking the injured and uninjured individuals for three years after the injury, the RAND team factored out the effects of inflation or plant closings so the difference in earnings could reasonably be attributed to the injuries. The findings are expressed as the average three-year proportional earnings loss for each of 23 types of injury, including three separate regions of the spine. As discussed earlier, CHSWC proposes merging the spine into one type, at least in the initial revisions. Another type, headache, is not ratable under the AMA *Guides* and is therefore omitted from the 2005 schedule and from this recommendation. That leaves 20 types of injury, each with an average proportional earnings loss for employees who received summary ratings for that type of injury.

CHSWC proposes that these findings for each type of injury be taken as the average diminished future earning capacity, as that term is used in Labor Code Section 4660. The RAND study is the only comprehensive study of diminished earnings presently available.

An objection to reliance on the RAND study is the argument that wage losses will be different because return-to-work (RTW) incentives are different since the repeal of vocational rehabilitation and the adoption of a tiered compensation rate. CHSWC agrees that an improvement in RTW rates is certainly intended and expected. This change, however, is not expected to occur immediately. The tiered benefit system seemingly applies only to dates of injury on or after January 1, 2005, and it does not apply to small employers. CHSWC concludes that the RAND findings remain the most appropriate basis for determining diminished future earning capacity until a new empirical study of earnings losses is conducted.

Some may question reliance on average WPI percentages and average proportional earnings losses because the average relationship between WPI and proportional earnings loss might not hold true across the range of severity. For example, a 25% impairment may have more or less than five times the impact on earning capacity as a 5% impairment to the same part of the body. Because all injuries to the same part of the body are assigned to the same FEC factor, the final rating for the 25% WPI will be five times as much as the final rating for the 5% WPI. This is a necessary limitation of the schedule at this time. Sufficient data have not yet been acquired to detect the differing relationships between impairment ratings and earnings losses across the range of severity. Such detailed data collection and analysis are beyond the scope of any

¹⁶ See Labor Code Section 4660(b)(2), in Attachment A.

research likely to be done within the next five years. To mitigate the limitations of reliance on averages, CHSWC is recommending that exceptions to the schedule be allowed for extreme cases as discussed in the section, Prima Facie Evidence or Conclusive Presumption.

Some may object that the average severity of cases being rated under the 2005 schedule cannot be compared to the average proportional earnings loss found by RAND because the populations of cases are different. Some percentage of the cases that received permanent disability ratings under the pre-2005 schedule in the RAND study would be excluded from the current impairment ratings because they do not have objective evidence of impairment recognized under the AMA *Guides*. If those cases, sometimes called the “zeros,” were mostly the less severe cases, then the average proportional earnings loss for cases studied by RAND could be lower than the average proportional earnings loss for the cases that remain ratable under the 2005 schedule. The objection rests on the assumption that proportional earnings losses for the zeros were lower than the overall average. This assumption is plausible but unproven. In fact, the opposite might be true. Research has shown that return to work outcomes are heavily influenced by other factors besides the objective physiological impairment.¹⁷ It is plausible that many of the zeros may reflect these other psychosocial factors and that they may experience larger proportional earnings losses than the cases that remain ratable. Until further research is done, there is no empirical way to evaluate the extent to which the average earnings loss of the population of cases obtaining ratings under the AMA *Guides* differs from the average earnings loss of the population of cases examined by RAND, or even to be certain of the direction of that difference. In the future, proportional earnings losses can be measured in the population of workers who receive ratings under the AMA-based schedule. Until then, a comparison between average WPI ratings and average proportional earnings losses is the most accurate method available for revising the rating schedule.

If the cases that drop out of the ratable population are predominantly the cases that had lower earnings losses, then the average earnings losses of the remaining population seen in the ratings under the 2005 schedule would be greater than the average earnings losses in the RAND findings. These are the “zeros,” the cases with no objective evidence of disability ratable under the AMA *Guides* and the 2005 schedule but with subjective disability ratings that placed them within the population of cases studied by RAND.

Some may question reliance on the RAND percentages of proportional earnings loss due to technical issues with the RAND study. For example, the available data sources did not include post-injury earnings from self-employment. Experts have not suggested, however, that the difference would be substantial or that the RAND findings are fundamentally unsound. Moreover, as a matter of law, the RAND study is designated by statute to be the initial basis for the determination of diminished future earning capacity.

Some may object that the average earnings loss findings do not reflect the differences between workers who return to work and those who do not return. The RAND study found a significant difference in proportional earnings loss depending upon whether the worker returned to the at-injury employer. That difference has already been addressed in the tiered benefit amounts

¹⁷ e.g., Shaw, 2005, and Sullivan, 2005.

payable under Labor Code Section 4658(d). That section provides that an employee who does not receive a qualifying offer of return to work is entitled to 35% higher weekly benefits than an employee who does receive a qualifying offer. (The differential does not apply if the employer has fewer than 50 employees.) Empirical evidence does not support a wider spread in compensation than the 30% already provided. (The spread is plus or minus 15% from the basic weekly rate, for a 30% spread. Compared to the worker receiving 85% of the basic rate, however, the worker receiving 115% of the basic rate is receiving 35.3% more.) A wider spread could lead to unintended consequences. CHSWC recommends further study of the effect of the existing differential before any further RTW modification is adopted.

The lead author of the RAND final report has predicted that a new study could produce findings by 2008 or possibly 2007.¹⁸ Until then, the proportional earnings loss findings as reported in the existing study are the most current and accurate basis for revision of the schedule.

Exception for Psychiatric Disabilities

Psychiatric disabilities warrant a different analysis. The rationale for the proposed FEC calculations does not hold true for psychiatric injuries. Unlike the other types of injury, psychiatric impairments are not rated under the *AMA Guides*. Also unlike other types of injuries, psychiatric disability ratings under the pre-2005 schedule had little correlation with average earnings losses.

The 2005 schedule adopted the Global Assessment of Function (GAF) scores and assigned impairment ratings to these GAF scores in an effort to improve on the pre-2005 system. A high GAF score indicates no impairment, while a low GAF indicates a severe impairment. GAF has been a component of psychiatric assessments for years, although it was not developed to be an instrument for evaluating PD. GAF was not used for PD ratings in California until 2005, and GAF has not been evaluated as a tool for rating PD.

Sound discretion must be exercised to set an FEC factor for psychiatric disabilities in the absence of a meaningful baseline. It is instructive to consider which GAF score corresponds to a total disability. The GAF range of 31 to 40 is described as “some impairment in reality testing or communications (e.g., speech is at times illogical, obscure or irrelevant) OR major impairment in several areas, such as work or school, family relations, judgment thinking, or mood (e.g., depressed man avoids friends, neglects family, and is unable to work...).” By definition, a person at the bottom of this range will be unemployable. The 2005 schedule assigns impairment ratings of 69 to 51 for this range of GAF scores. Taking a GAF score at the most severe end of that range as the point at which the patient is totally unemployable, the impairment rating of 69 should produce a PD rating of 100%. Since $69 \times 1.45 = 100$, an FEC factor of 1.45 would produce the appropriate 100% PD rating for a person at the most severe end of that range. Accordingly, 1.45 is the recommended FEC factor for psychiatric disabilities.

¹⁸ Public remarks by Robert T. Reville at the December 9, 2005 Meeting of the Commission on Health and Safety and Workers' Compensation.

Further research is required to validate the GAF as a tool for PD rating or else establish a more satisfactory method of rating psychiatric disability.

Modification of Age Adjustment

The schedule in California has always provided for upward adjustments with increasing age of the employee at the time of injury. The rationale was that it was more difficult for older workers to adapt to their disabilities and return to work. Some states use an age adjustment in the opposite direction based on the rationale that a younger worker will have more years of earnings losses than a worker nearer retirement age. As it turns out, empirical data show that proportional earnings losses are highest for workers under age 30, lowest for workers aged 40 to 49, and intermediate for workers aged 30 to 39 and for workers aged 50 to 65. These findings are presented in Figure 6.1 in the final RAND report. CHSWC recommends that the numeric values corresponding to that graph be obtained from RAND and that age adjustment factors be adopted that will be overall benefit-neutral (compared to the existing age adjustments) but will reflect the weighted average increase or decrease in proportional earnings losses according to age groups below 30, 30 to 39, 40 to 49, and 50 to 65. The age adjustment could be, but need not be, a constant multiplier such as (hypothetically) 1.05 for one age group and 0.95 for another. Preferably, the adjustment would be in the form of a table assigning different age-adjusted ratings to different combinations of age and disability as depicted in the RAND illustration. Unless an age adjustment can be implemented consistent with the RAND findings, CHSWC would recommend that the age adjustment be eliminated from the schedule until an empirically based age adjustment can be formulated on the basis of further research.

Bi-annual Revisions

CHSWC recommends bi-annual revision of the schedule. Because the proposed method is based on measurements of system performance, it can be objectively reviewed and corrected. The two key components in the recommended determination of the FEC factors are average impairment ratings and average proportional earnings losses. The average impairment ratings can be updated by continuing analysis of DEU data. The average earnings losses can be determined when there is a new empirical wage-loss study.¹⁹ It is anticipated that the earnings loss research might be updated every five years.

Bi-annual revision of the FEC factors would have several benefits:

- Until more data is accumulated, only the most common types of injuries (accounting for over 90% of all injuries) can be individually calculated. At first, the FEC factor for less

¹⁹ There are several plausible ways to obtain the data for updating the schedule. For example, the average WPI could be based on the last two calendar years preceding a July 1 revision, and for any less common type of injury, the window could be extended beyond two years as long as necessary to develop an average WPI with a standard error less than 0.50. The average proportional earnings loss by type of injury (or by other similarities) could be determined by CHSWC research every three to four years or as warranted by the rate of change in factors affecting earnings losses.

common types of injuries will have to be determined by the average for all types of injuries. As the number of DEU ratings increases, the less frequent types of injuries will accumulate enough experience to permit calculating individual FEC factors for these less frequent types, as well.

- There may be concern that the behavior of the system in the first year of implementation does not necessarily predict behavior over the next two to five years. Bi-annual recalculations of the FEC factors would correct for any ratings creep, the upward or downward drift in evaluation and rating behavior.
- There may be concern that the cases coming through the DEU summary rating process in the first year of implementation are not representative. This paper has discussed reasons to believe that any bias will be minimal. Whatever sample bias exists in the first year's experience will be corrected by recalculating the FEC factors bi-annually.

Bi-annual recalculations would reflect the reality that in an empirically based rating system, the accuracy of the ratings can be continually improved as additional data become available. Each revision of the schedule should therefore be regarded as temporary. Medical evaluation behavior may change and case handling may change, causing the distribution of ratings to shift. Bi-annual revisions can correct for those shifts. In addition, medical outcomes may change and RTW rates may improve, causing the distribution of earnings losses to shift. Five-year updates of the wage-loss studies can be incorporated to reflect those changes. CHSWC recommends that the California schedule be made as accurate as possible with the data available both now and in the future.

Prima Facie Evidence or Conclusive Presumption

Existing law provides that the schedule is only prima facie evidence of the percentage of permanent disability.²⁰ A party may introduce other evidence to establish a percentage of disability different from the percentage calculated under the schedule. This was seldom attempted under the pre-2005 schedule except in cases where an employee claimed to be totally unemployable as a result of an injury.²¹ With years of familiarity and acceptance, the pre-2005 schedule acquired an almost conclusive status. Parties knew there was no point in attempting to circumvent the schedule in most cases, so the schedule provided a modicum of efficiency in the process of resolving the cases and delivering the benefits. Without the years of familiarity and acceptance, the 2005 schedule is more likely to be challenged by other evidence of the percentage of diminished future earning capacity. If parties routinely introduce or threaten to introduce other evidence of the percentage of permanent disability in the hope of obtaining more favorable awards or obtaining tactical advantage, then the schedule would not promote efficiency, consistency, objectivity and uniformity. Amending Labor Code Section 4660 to

²⁰ Labor Code Section 4660(c). See Attachment A for full text.

²¹ These were called *LeBoeuf* cases after the precedent that supports this departure from the schedule. *LeBoeuf v. Workers' Comp. Appeals Bd.* (1983) 34 Cal. 3d 234.

make the schedule conclusive evidence of the percentage of PD would make the system more efficient and consistent.

An amendment to make the schedule conclusive evidence of the percentage of permanent disability would maximize efficiency at the cost of losing flexibility to meet the needs of individual cases. To achieve a balance between efficiency in general and flexibility in individual cases, there would need to be exceptions to the conclusive effect of the schedule. Appropriately defined exceptions could ameliorate the effects of applying an FEC factor based on averages to a case that is far from average. Appropriately defined exceptions could permit adequate compensation in the cases where the disparity between scheduled rating and individual disability is most pronounced. Appropriately defined exceptions could reduce the likelihood of judicially created exceptions or even judicial invalidation. Exceptions might be handled under a hybrid approach such as used in Connecticut and Texas. In a hybrid approach, workers who meet certain criteria may receive some form of individual wage-loss benefits after they have exhausted their scheduled benefits.²² The judicial process may produce appropriate results in individual cases but, as the saying goes, "Hard cases make bad law." The legislative process offers an opportunity to clearly define the desired boundaries of the conclusive presumption consistent with public policy.

CHSWC recommends that when the schedule is amended to achieve the State's policy goals, the Legislature should amend the Labor Code to make the schedule conclusive evidence of the percent of disability in most cases. CHSWC recommends further discussion to define the appropriate exceptions to conclusive application of the schedule

Conclusions

Decisions on how to revise the schedule depend on the data available. Additional data acquired since the adoption of the 2005 schedule can be used to revise the schedule to more nearly accomplish the State's policy goals. Data that will become available in the future can be used to regularly update the schedule to accomplish those goals. Recognizing that any solution is provisional and any solution may be revised and improved as more complete data become available, CHSWC recommends that a process be established to regularly update the schedule using the latest available research to implement the State's policy goals.

²² Reville, 2005.

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CHSWC is solely responsible for the contents of this paper.

Attachments

Attachment A	Labor Code Section 4660 as Amended by SB 899
Attachment B	Terminology
Attachment C	Initial Research on the Effects of the 2005 Schedule
Attachment D	Proportional Earnings Loss Excerpt from RAND Study
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ATTACHMENT A

LABOR CODE SECTION 4660
AS AMENDED BY SB 899

4660. (a) In determining the percentages of permanent disability, account shall be taken of the nature of the physical injury or disfigurement, the occupation of the injured employee, and his or her age at the time of the injury, consideration being given to an employee's diminished future earning capacity.

(b) (1) For purposes of this section, the "nature of the physical injury or disfigurement" shall incorporate the descriptions and measurements of physical impairments and the corresponding percentages of impairments published in the American Medical Association (AMA) Guides to the Evaluation of Permanent Impairment (fifth edition).

(2) For purposes of this section, an employee's diminished future earning capacity shall be a numeric formula based on empirical data and findings that aggregate the average percentage of long-term loss of income resulting from each type of injury for similarly situated employees. The administrative director shall formulate the adjusted rating schedule based on empirical data and findings from the Evaluation of California's Permanent Disability Rating Schedule, Interim Report (December 2003), prepared by the RAND Institute for Civil Justice, and upon data from additional empirical studies.

(c) The administrative director shall amend the schedule for the determination of the percentage of permanent disability in accordance with this section at least once every five years. This schedule shall be available for public inspection and, without formal introduction in evidence, shall be prima facie evidence of the percentage of permanent disability to be attributed to each injury covered by the schedule.

(d) The schedule shall promote consistency, uniformity, and objectivity. The schedule and any amendment thereto or revision thereof shall apply prospectively and shall apply to and govern only those permanent disabilities that result from compensable injuries received or occurring on and after the effective date of the adoption of the schedule, amendment or revision, as the fact may be. For compensable claims arising before January 1, 2005, the schedule as revised pursuant to changes made in legislation enacted during the 2003-04 Regular and Extraordinary Sessions shall apply to the determination of permanent disabilities when there has been either no comprehensive medical-legal report or no report by a treating physician indicating the existence of permanent disability, or when the employer is not required to provide the notice required by Section 4061 to the injured worker.

(e) On or before January 1, 2005, the administrative director shall adopt regulations to implement the changes made to this section by the act that added this subdivision.

ATTACHMENT B

TERMINOLOGY

Certain terms are used frequently in this discussion with distinct meanings.

“Impairment” means “a loss, loss of use, or derangement of any body part, organ system, or organ function.”²³ Synonyms used in this paper include “medical impairment,” “AMA impairment,” “whole person impairment,” and “WPI.” The measure of impairment is the percentage whole person impairment, or “impairment rating,” evaluated pursuant to the AMA *Guides to the Evaluation of Permanent Impairment*, fifth edition. “The **whole person impairment percentages** listed in the *Guides* estimate the impact of the impairment on the individual’s overall ability to perform activities of daily living, *excluding work*....”²⁴

“Diminished future earning capacity” is a term introduced by SB 899. See Attachment A. The term is understood to mean the percentage reduction in an average injured worker’s post-injury earnings compared to the earnings that would have been expected without the injury. See “proportional earnings loss.” The statute permits consideration of other factors in addition to type of injury, but research cannot presently measure more complicated relationships such as the interactions among type of injury, severity of injury, age, and occupation.

“Disability” in the present context means an alteration of an individual’s capacity to meet occupational demands because of an impairment.²⁵ All discussion of disability in this paper refers to permanent disability, not temporary disability. Labor Code Section 4660(b)(2) implies that the measure of permanent disability is the percentage diminished future earning capacity of persons similarly situated, that is, similarly with respect to impairment and type of injury and possibly with respect to other selected characteristics such as age and occupation.

“Earnings loss” means the dollar amount of the expected earnings that are lost as a consequence of an injury. “Uncompensated earnings loss” means the difference between the earnings loss and the indemnity benefits (temporary and permanent disability indemnity, and vocational rehabilitation maintenance allowance) paid on account of the injury.

“Rating” ordinarily means a disability rating unless the context indicates an impairment rating. Unless the context clearly indicates individual ratings, all discussions of ratings are for averages.

“Proportional earnings loss” is the percentage by which the post-injury earnings of injured persons are reduced compared to uninjured controls, as found by the RAND PD reports cited in the text. It is understood to be the measure of “diminished future earnings capacity.”

“Type of injury” generally means the body part injured. Some disability ratings were previously grouped by the effect, such as grip loss, rather than by cause, such as nerve root impingement.

²³ AMA *Guides to the Evaluation of Permanent Impairment*, fifth edition, page 2.

²⁴ AMA *Guides*, page 4, emphasis in original.

²⁵ Paraphrased from AMA *Guides*, page 8, omitting non-occupational elements from the AMA definition.

ATTACHMENT C

**INITIAL RESEARCH ON THE EFFECTS OF 2005 PERMANENT DISABILITY
RATING SCHEDULE**

This section reviews why new research was necessary to understand the effects of the new schedule and how the initial research attempted to quantify the effects.

Historical Version of Rating Schedule

The Permanent Disability Rating Schedule (schedule) in effect prior to January 1, 2005 (which we call the Pre-2005 schedule) traces its origin back to the Workmen's Compensation Act of 1917. It contained a list of injuries and physical impairments with corresponding percentages of disability. Those "standard" disability ratings were individually adjusted in accordance with tables that reflect variations for age and occupation of the injured worker. The result of the calculation was the final adjusted rating. For many injuries, the standard rating was assigned according to work preclusions described by a physician. In some cases, subjective pain was ratable in addition to or in lieu of other factors of disability. While the majority of states adopted some version of the American Medical Association *Guides to the Evaluation of Permanent Impairment*, California retained its unique system for rating permanent disability (PD).

Reform Legislation Requirements

Senate Bill (SB) 899, signed by the Governor Arnold Schwarzenegger on April 19, 2004, required the Administrative Director (AD) of the California Division of Workers' Compensation (DWC) to develop a new schedule using the descriptions and measurements of physical impairments according to the AMA *Guides*, fifth edition, and an adjustment for the effect of the impairment on diminished future earning capacity. The full text of the revised Section 4660 of the Labor Code is shown in Attachment B.

Difficulties Encountered in Developing the First Revision to the Schedule

The AD adopted a schedule as an emergency regulation effective January 1, 2005. With minor changes, this 2005 schedule became permanent June 10, 2005. In the 2005 schedule, the AMA impairment percentage is multiplied by a future earning capacity (FEC) factor. The product of that multiplication is used in the calculation of an employee's permanent disability (PD) rating in place of the 'standard' disability rating that was used under the pre-2005 schedule. The age and occupation adjustments remain unchanged from the pre-2005 schedule.

The formulation of the FEC factor required for the schedule has been controversial. The difficulty is that the RAND study cited in the statute was conducted under the schedule in effect prior to SB 899. RAND evaluated the average percentage of earnings losses for injured employees compared to their uninjured co-workers, and RAND compared the proportional

earnings losses to the percentage disability ratings. RAND found that across different disabilities, the ratio between the PD rating percentage and the actual percentage loss of long-term earnings varied by a factor of four, from 0.45 to 1.81. Despite the variation at the extremes, the RAND study also showed that on average, the ratings were actually quite close to the average percentages of long-term earnings losses. The overall ratio of summary standard ratings over losses was 1.09. The RAND findings are summarized in Table 5 of Seabury, 2004, and excerpted in Attachment D. The study was of limited use in the formulation of the 2005 schedule, however, because it did not examine the relationship between impairment ratings under the AMA *Guides* and the resulting percentages of earnings losses. The relationships that RAND found between wage losses and the old standard disability ratings would not necessarily hold true for the relationship between wage losses and AMA-based impairment ratings. To the contrary, it appeared that impairment ratings are generally lower than the old standard ratings for the same conditions, and the relationships are not consistent across different types of injuries. Without adequate data, the AD had no choice but to use her judgment in establishing the adjustment factors. Nobody could predict exactly how the new schedule would perform.

Initial Studies Attempted to Predict Performance of the 2005 Schedule

When the AD promulgated the 2005 schedule by emergency regulation effective January 1, 2005, insufficient data were available to calculate a comparison between the pre-2005 schedule and an AMA-based schedule. The early studies of the new schedule consisted of two dual-rating projects on limited samples and one theoretical comparison of the maximum ranges of ratings for each type of injury under the AMA and under the pre-2005 schedule. While informative in their own ways, none of these studies provided the sound basis for revision of the schedule that is provided by the ongoing analysis of actual ratings under the 2005 schedule in conjunction with the RAND findings on earnings losses.

At the request of the Legislature, the Commission on Health and Safety and Workers' Compensation (CHSWC) and the Workers' Compensation Insurance Rating Bureau (WCIRB) of California undertook three evaluation studies. Two studies by CHSWC and the WCIRB have been completed and the data analysis from the third study is included in this proposal. Independently, the California Applicants Attorneys' Association (CAAA) also sponsored a study which was released in December of 2004.

The first CHSWC-sponsored study, conducted by Frank Neuhauser, University of California Berkeley, compared the pre-2005 schedule to AMA impairment ratings by comparing the maximum possible rating under each system for each type of injury. This is called the relative maximum value (RMV) method. This study evaluated the effect of adjusting 218,000 pre-2005 ratings adjusted up or down in proportion to the relative maximum values of possible ratings for the respective types of injuries under the 2005 schedule compared to the pre-2005 schedule. The RMV model predicted that the 2005 schedule would reduce the average ratings by 8.2%, using certain assumptions about the prevalence of alternative methods of evaluating spinal disabilities. The RMV method does not have any way of predicting the percentage of cases that become non-ratable, or "zero," under the AMA *Guides*. The major limitation of the RMV method is its

assumption that the distribution of ratings within the maximum ranges will be proportional between the two rating systems.

The CHSWC/WCIRB-sponsored study, conducted by Christopher Brigham, M.D, compares the final adjusted ratings in 250 cases that were already rated by the DEU under the pre-2005 schedule and re-rated by Dr. Brigham under the 2005 schedule. The Brigham study found that 39% of the 250 cases that were rated under the pre-2005 schedule would no longer have a ratable impairment according to the AMA *Guides* criteria and therefore would have a zero rating in the 2005 schedule. In cases that had ratable impairment, the average rating was 24.9% under the pre-2005 schedule and 10.5% under the 2005 schedule. That is a 58% reduction in the average rating in cases that have ratable impairment.

The CAAA-sponsored study, conducted by Paul Leigh, Ph.D., and Stephen McCurdy, M.D., of the University of California Davis, took a sample of 250 cases in which medical evaluations had been written under the pre-2005 criteria and re-rated the cases using both AMA criteria and the pre-2005 schedule. Despite the differences in study designs and despite being conducted entirely independently of one another, the two dual-rating studies produced some similar results. The Leigh study found that the mean disability rating under the pre-2005 schedule was 42%, and the mean impairment rating under the AMA *Guides* was 14%. Applying the 1.22 weighted average FEC of the 2005 schedule (as reported by Neuhauser), the mean AMA impairment rating in Dr. Leigh's sample would be adjusted to 17%. That would be a 59% reduction in average ratings for cases that have ratable impairment.

Both of the dual-rating studies are limited by the fact that the medical reports were not written to AMA criteria, and both studies attempted to mitigate that limitation by calling on the judgment of the reviewer(s) to extrapolate AMA impairments from non-AMA medical evaluation reports. Despite differences in methodology and average ratings within their samples, the average reduction in ratings (58% vs. 59%) is remarkably similar in the two studies.

The "Zeros"

As noted above, a significant fraction of cases that were ratable under the pre-2005 schedule have no ratable impairment under AMA criteria. These cases are often called the "zeros." These were often the more subjective disabilities that do not produce objective findings recognized by the AMA *Guides*. It will be difficult to determine how many of these cases never reach PD rating.

The current best estimates of the savings from the "zeros" are bracketed by the Brigham study and the Leigh study. The Brigham study found that 39% of the 250 cases that were rated under the pre-2005 schedule would no longer have a ratable impairment according to the AMA *Guides* criteria and therefore would have a zero rating in the 2005 schedule. These cases represented approximately 30% of the benefit dollars payable under the pre-2005 schedule. The Leigh study found approximately 10% of the sampled cases became zeroes. The Brigham sample was drawn from DEU summary ratings, which tend to be simpler cases, while the Leigh sample was drawn from reports of Agreed Medical Examiners in attorney-represented cases, which tend to be the

more serious and complicated cases. Because of the different sampling effects, the actual percentage of all cases that will become zeros probably falls between 10% and 39%.

It has been suggested that California should expect a larger percentage of cases to turn into zeros than other states found, because California had a larger percentage of cases being subjectively evaluated prior to adoption of the *AMA Guides*. On the other hand, in Texas where AMA 3rd edition criteria are strictly applied, benefits are low and attorney involvement is low, exactly the same percentage (53.9%) of cases with at least 7 days of TD went on to obtain PD awards as in California, where the rating schedule was highly subjective, compensation was higher, and attorney involvement was high, according to Barth, 2002.

Although the exact share of “zeros” remains a matter of opinion, these savings are expected to be significant and permanent. No matter what multipliers are adopted for the schedule, a zero impairment under the *AMA Guides* will still produce a zero permanent disability rating.

Ongoing Research

The initial research into the effects of the 2005 schedule was based on attempts to predict the behavior of the rating system under the *AMA Guides*. Each method had its limitations. The actual behavior of the rating system could not be reliably predicted until the system was actually operating. CHSWC is sponsoring ongoing analysis by Frank Neuhauser of actual ratings by the DEU under the 2005 schedule. The methods and results of that research are described in the body of this paper and in additional attachments.

Proportional Earnings Loss Excerpt from RAND Study

Excerpt of Table 5 from Seabury, et al, *Data for Adjusting Disability Ratings to Reflect Diminished Future Earning Capacity in Compliance with SB 899*

Table 5

Disability Ratings and Earnings Losses for Broad Injury Categories in the RAND Data

	Standard Rating	3-Year Proportional Earnings Loss	Ratio of Ratings over Losses	Number of Observations
Spine*	19.70	18.45	1.07	39,198
Lumbar	20.93	19.14	1.09	
Cervical	16.05	15.04	1.07	
Thoracic	16.80	15.69	1.07	
Knee	14.65	9.31	1.57	12,846
Loss of grasping power	11.21	8.73	1.28	11,776
General upper extremity	17.89	17.98	1.00	8,776
Shoulder	9.73	13.08	0.74	7,358
Hand / Fingers	8.86	4.89	1.81	6,895
Wrist	13.15	10.84	1.21	5,968
Ankle	14.12	9.28	1.52	4,151
Elbow	9.44	6.23	1.51	2,896
Hearing	10.71	17.69	0.61	2,068
General lower extremity	19.00	17.21	1.10	1,765
Psychiatric	22.13	49.01	0.45	1,433
Toe(s)	10.10	9.09	1.11	523
Hip	21.68	21.10	1.03	475
General abdominal	18.26	19.24	0.95	448
Heart disease	29.78	30.82	0.97	353
Vision	10.31	5.68	1.81	306
Lung disease	20.06	25.44	0.79	264
Headaches	7.75	12.35	0.63	181
Post-traumatic head syndrome	23.85	25.57	0.93	96
Other single	13.81	9.04	1.53	597
Total	15.58	14.25	1.09	108,373



FRANK NEUHAUSER, Project Director
 UC DATA/Survey Research Center
 2538 Channing Way, #5100
 Berkeley, California 94720-5100

Tel: (510) 643-0667
 Fax: (510) 643-8292
 E-mail: frankn@uclink4.berkeley.edu

Memorandum

Date: August 26, 2005
To: Christine Baker, Executive Officer, CHSWC
 Dave Bellusci, Senior VP & Chief Actuary, WCIRB
CC: Ward Brooks, WCIRB
From: Frank Neuhauser
Re: Analysis of ratings under the new PD schedule, through August 17, 2005

I have finished preliminary analyses of ratings done through August 15, 2005 under the new Permanent Disability Rating Schedule (2005 PDRS). In this memorandum, I compare the average ratings under the 2005 PDRS to comparable groups of ratings under the pre-2005 PDRS. Since the memorandum dated June 28, 2005, I have refined the comparison groups more precisely.

The primary comparison is for “summary” ratings for unrepresented workers under each schedule. We include under the heading of “summary” ratings:

- Formal ratings: ratings requested by a Workers’ Compensation Judge (2)
- Treating physician reports for unrepresented workers
- Panel QME reports for unrepresented workers

The pool of claims included for this comparison groups should be quite similar for ratings done by the DEU under the old and new schedules.

The secondary comparison is for “consultative” ratings for represented workers under each schedule. We include under this heading of “consultative” ratings:

- Walk-in consultative ratings for represented workers
- Mail-in consultative ratings for represented workers
- A very small number of consultative ratings done for unrepresented workers that “walk-in” to the DEU.

This secondary comparison group may have changed substantially in the composition of the claims because of statutory changes introduced by recent reforms. Under SB-899, if the parties in represented cases cannot agree on an agreed medical evaluator (AME) they are required to request a QME panel from the DWC. These reports supposed to be submitted to the DEU for rating. This may substantially increase the portion of ratings on represented cases that are performed by the DEU, and consequently, affect the statistics calculated for these cases.

Current estimates:

- Through August 17, 2005 there were 1501 reports rated under the 2005 PDRS where the data could be analyzed. (a very small number of cases apparently rated under the new schedule had missing data, such as incomplete impairment category numbers.)
- 705 of these ratings were “summary” ratings and are included in the primary estimate.
- 796 of the ratings were for “consults” where the comparison between the two schedules should be considered more carefully.

Average ratings

- The average rating on Summary ratings was 11.14% compared to an average of 18.30% for a comparable group of claims under the pre-2005 PDRS. This represents a decline of 39% in the average rating
- The average rating for Consults was 17.45% compared to an average of 28.15 for a comparable group of cases rated under the pre-2005 PDRS.

Average Ratings			
	2005 PDRS	Pre-2005 PDRS	Difference
Summary	11.14%	18.30%	-39%
Consults	17.45%	28.15%	-38%

Apportionment

The extent of apportionment was evaluated for Summary rated claims. (Summary ratings are submitted to a judge to determine whether apportionment is appropriate. Consults are not submitted to a judge and apportionment is generally not considered by the DEU).

- 75 of the 705 summary rated cases (10.6%) included apportionment.
- The average percent of the rating apportioned to other cases or causes was 41%, that is, on average, 59% was awarded in the current case when any apportionment was applied.
- The impact was to reduce the average rating on all cases by 4.7%, from 11.14 to 10.62.
- Since prior to SB-899 there was very rarely apportionment applied in the DEU, nearly all of this change is attributable to apportionment to causation.

Apportionment—Summary Ratings

		% of all
Number of ratings	705	
Number with apportionment	75	10.6%

On cases with apportionment, an average of 41% was apportioned to non-industrial cause (The DEU has not yet seen a case where a party claimed apportionment to a prior disability under the pre-2005 PDRS.) Overall, apportionment has reduced the average award on all summary ratings by 4.7%

Apportionment—Summary Ratings

Average % apportioned to non-industrial	41%
Average Rating Before Apportionment (all cases)	11.14%
Average Rating after Apportionment (all cases)	10.62%
Percent impact on rating	-4.7%

Average ratings by impairment type:

<u>Summary Ratings</u>		Average Rating		
	N	2005 PDRS	Pre-2005 PDRS	Difference
Wrist/Hand	88	5.91	10.29	-42.5%
Arm/Elbow/ Shoulder	148	8.69	15.85	-45.2%
Lower Extremity	164	9.12	15.77	-42.2%
Spine	271	14.01	23.51	-40.4%
Psych	12	25.50	17.78	+43.4%
Other	22	15.42	16.22	- 4.9%

<u>Consult Ratings</u>		Average Rating		
	N	2005 PDRS	Pre-2005 PDRS	Difference
Wrist/Hand	36	7.06	18.13	- 61.1%
Arm/Elbow/ Shoulder	159	13.16	25.85	- 49.1%
Lower Extremity	110	10.74	23.34	- 54.0%
Spine	382	18.85	32.18	- 41.4%
Psych	45	30.76	27.99	+ 9.9%
Other	61	26.30	24.13	+ 9.0%

It is important to treat these findings as preliminary. While the estimates have remained reasonably stable over the past 3 months, the number of cases rated under the 2005 PDRS is still small, 1501 of the more than 70,000 DEU ratings done in 2005. Second, we are working with the DEU to compare all case they have identified manually as rated under the new schedule to the set of cases I identify through computer programming. This process should be completed next week. This is a new rating process and the initial ratings may be less indicative of claims than a similar sample drawn from a prior period when the rating schedule was well understood by all parties.

Data:

These data were extracted from the Disability Evaluation Unit database by the Division of Workers' Compensation. We obtained all ratings with in the database, from 1987 to the present, about 1.5 million records. However, for this analysis we restricted the ratings to those performed from 1/1/04 to 6/15/05. The most important reason for this restriction is that the coding of the rating type was changed at the beginning of 2004. Rating type refers to whether it is a formal rating (requested by a WCJ), a report by a QME, a report by a treating physician, a report mailed in, or a rating done on a walk-in basis, usually for an attorney. The type of rating was a key criterion for establishing a comparison group of ratings done under the pre-2005 schedule.

Comparison cases:

In discussion with the WCIRB and DEU, we developed four key criteria to establish comparability across the two rating schedules.

1. **Rating type:** Average ratings vary considerably by rating type, and at this early stage, the distribution of rating types for the 2005 PDRS varied from the distribution seen for all ratings done during the period. Rating types include:
 - a. Formal = At request of WCJ
 - b. QME reports
 - c. Treating physician reports
 - d. "Walk-ins" = usually reports handled on for attorneys walking in.
 - e. M = Mail-in, similar to walk-in.
2. **Disability category:** Ratings vary greatly depending upon the underlying disability. At this initial stage, the distribution of disabilities is different from the long-term distribution, most important, there is a higher concentration of spinal impairments in the new PDRS ratings. There are a large number of disability categories which makes it necessary to collapse disabilities to a limited number of categories. We did this along the lines of major categories with two special cases.
 - a. Group 1: wrist, hands, and fingers
 - b. Group 2: all other upper extremity
 - c. Group 3: lower extremity
 - d. Group 4: spine
 - e. Group 6: psychiatric
 - f. Group 9: all other

Psychiatric cases were few, but they represent a major change between schedules. (Vision impairments might, category 5, were examined in the previous work, however they were very infrequent and in the future will be collapsed into the “all other” group.

3. **Date from injury to rating:** Previous work has shown that as the time between injury and rating increases, the average rating increases. Consequently, we broke the time from injury to rating into 100 day increments and matched on this criterion.
4. **Multiple disabilities:** This was the most difficult criterion to design. Not surprisingly, multiple disability cases receive much higher ratings on average than single disability cases. But, the listing of multiple impairments will be more frequent under the 2005 schedule because of the design of the AMA process. Consider spinal impairments. The pre-2005 schedule had only one category. The AMA process allows one to assign at least 3 different impairments (lumbar, thoracic, and cervical) to a spine disability. I decided that we would define multiple impairments as those where the impairments involved two or more of the 7 groups listed above. That is, if two impairments were listed for the lower extremity, they were treated as a single impairment case. An impairment to the lower extremity and upper extremity would be treated as a multiple case. Also, because the number of combinations created the potential for very small cell sizes or a failure to match, I defined multiple impairment on just as a dichotomous choice. This means that the primary impairment was taken as the impairment category for matching and then the additional requirement of multiple or single impairment was required. That is, a primary back impairment with a lower extremity impairment and a primary back impairment with an upper extremity impairment were both treated as a multiple back impairment.

After creating these specific cells, we failed to match the new PD rating to a comparison group in only one case. In a small number of cases (16), the comparison group had fewer than 30 pre-2005 ratings.

Apportionment: Apportionment to causation was introduced as part of the SB-899 reform package. Apportionment is identified by inclusion of the percentage apportioned to the current case (when less than 100%). This indication appeared in 10.6% of cases. We are not positive at this stage whether all DEU raters adhere to this format. We have had discussions with the DEU about being sure that this format is standardized for future ratings. At this stage, the 10.6% figure can be thought of as a lower bound estimate.



FRANK NEUHAUSER, Project Director

UC DATA/Survey Research Center
2538 Channing Way, #5100
Berkeley, California 94720-5100

Tel: (510) 643-0667
Fax: (510) 643-8292
E-mail: frankn@uclink4.berkeley.edu

Memorandum

Date: December 8, 2005
To: Christine Baker, Executive Officer, CHSWC
CC: Carrie Nevans, AD/DWC, Blair Megowan, Manager/DEU,
From: Frank Neuhauser, Survey Research Center/UC Berkeley
Re: Analysis of ratings under the new PD schedule, through Oct. 17, 2005

I have finished analyses of ratings done through October 17, 2005 under the new Permanent Disability Rating Schedule (2005 PDRS). In this memorandum, I compare the average ratings under the 2005 PDRS to comparable groups of ratings under the pre-2005 PDRS. The comparison groups used are similar to those used in the previous memo of October 5, 2005.

The primary comparison is for “summary” ratings for unrepresented workers under each schedule. We include under the heading of “summary” ratings:

- Formal ratings: ratings requested by a Workers’ Compensation Judge
- Treating physician reports for unrepresented workers
- Panel QME reports for unrepresented workers

The pool of claims included for this comparison groups should be quite similar for ratings done by the DEU under the old and new schedules.

The secondary comparison is for “consultative” ratings for represented workers under each schedule. We include under this heading of “consultative” ratings:

- Walk-in consultative ratings for represented workers
- Mail-in consultative ratings for represented workers
- A very small number of consultative ratings done for unrepresented workers that “walk-in” to the DEU.

This secondary comparison group may have changed substantially in the composition of the claims because of statutory changes introduced by recent reforms. Under SB-899, if the parties in represented cases cannot agree on an agreed medical evaluator (AME) they are required to request a QME panel from the DWC. These reports supposed to be submitted to the DEU for rating. This may substantially increase the portion of ratings on represented cases that are performed by the DEU, and consequently, affect the statistics calculated for these cases. However, since the statute only affects claims with dates of injury after 1/1/05 and nearly all of

the claims rated so far under the new schedule have injury dates before 2005, I expect that the comparisons are probably valid, at least at this early stage.

Current samples:

- Through October 17, 2005 there were 3,407 reports rated under the 2005 PDRS where the data could be analyzed. (a very small number of cases apparently rated under the new schedule had missing data, such as incomplete impairment category numbers.)
- 1,587 of these ratings were “summary” ratings and are included in the primary estimate.
- 1,799 of the ratings were for “consults” where the comparison between the two schedules should be considered more carefully.
- A small number of claims were missing key data or failed to match to a similar comparison group.

Average ratings

- The average rating on Summary ratings was 11.28% compared to an average of 18.78% for a comparable group of claims under the pre-2005 PDRS. This represents a decline of 39.9% in the average rating
- The average rating for Consults was 17.62% compared to an average of 29.41% for a comparable group of cases rated under the pre-2005 PDRS, a decline of 40.1%

Average compensation

- The indemnity award for summary rated claims under the new schedule was \$9,853 compared to an average of \$20,338 for a comparable group of claims under the pre-2005 PDRS. This represents a decline of 51.6% in the average award
- The average award for Consults was \$18,002 compared to an average of \$36,092 for a comparable group of cases rated under the pre-2005 PDRS, a decline of 50.1%

Un-Appportioned Awards				
		2005 PDRS	Pre-2005 PDRS	Difference
Summary				
	Ratings	11.28%	18.78%	- 39.9%
	Dollars	\$ 9,853	\$20,338	- 51.6%
Consults				
	Ratings	17.62%	29.41%	- 40.1%
	Dollars	\$18,002	\$36,092	- 50.1%

Apportionment

The extent of apportionment was evaluated for Summary rated claims. (Summary ratings are submitted to a judge to determine whether apportionment is appropriate. Consults are not submitted to a judge and apportionment is generally not considered by the DEU).

- 174 of the 1,587 summary rated cases (11.0%) included apportionment.
- The average percent of the rating apportioned to other cases or causes was 42.3%, that is, on average, 57.7% was awarded in the current case when any apportionment was applied.
- Since prior to SB-899 there was very rarely apportionment applied in the DEU, nearly all of this change is attributable to apportionment to causation.

Apportionment—Summary Ratings		
		% of all
Number of ratings	1587	
Number with apportionment	174	11.0%

Apportionment—Summary Ratings	
Average % apportioned to non-industrial	42.3%

Average Rating by Impairment Type:

<u>Summary Ratings</u>		Average Rating			
	N	2005 PDRS	Pre-2005 PDRS	Difference	Std. Er.
Wrist/Hand	190	6.0%	10.5%	-42.9%	0.49
Arm/Elbow/ Shoulder	345	8.8%	14.8%	-40.5%	0.41
Lower Extremity	348	8.2%	16.4%	-50.0%	0.48
Spine	575	14.0%	23.6%	-40.7%	0.38
Psych	27	30.0%	22.6%	+32.7%	4.00
Other	33	17.2%	21.6%	- 20.4%	3.20

<u>Consult Ratings</u>		Average Rating			
	N	2005 PDRS	Pre-2005 PDRS	Difference	Std. Er.
Wrist/Hand	68	7.3%	16.7%	- 56.3%	0.73
Arm/Elbow/ Shoulder	282	12.8%	25.4%	- 49.6%	0.65
Lower Extremity	167	10.9%	26.8%	- 59.3%	0.75
Spine	607	18.5%	33.2%	- 44.3%	0.46
Psych	66	33.6%	32.1%	+ 4.7%	2.10
Other	86	27.8%	29.4%	- 5.4%	2.50

It is important to treat these findings as preliminary. While the estimates have remained reasonably stable over the past 8 months, the number of cases rated under the 2005 PDRS is still small, 3,407 of the more than 100,000 DEU ratings done in 2005. Second, this is a new rating process and the initial ratings may be less indicative of claims than a similar sample drawn from a prior period when the rating schedule was well understood by all parties.

Data:

These data were extracted from the Disability Evaluation Unit database by the Division of Workers' Compensation. We obtained all ratings with in the database, from 1987 to the present, about 1.5 million records. However, for this analysis we restricted the ratings to those performed from 1/1/04 to 9/17/05. The most important reason for this restriction is that the coding of the rating type was changed at the beginning of 2004. Rating type refers to whether it is a formal rating (requested by a WCJ), a report by a QME, a report by a treating physician, a report mailed in, or a rating done on a walk-in basis, usually for an attorney. The type of rating was a key criterion for establishing a comparison group of ratings done under the pre-2005 schedule.

Comparison cases:

In discussion with the WCIRB and DEU, we developed four key criteria to establish comparability across the two rating schedules.

5. **Rating type:** Average ratings vary considerably by rating type, and at this early stage, the distribution of rating types for the 2005 PDRS varied from the distribution seen for all ratings done during the period. Rating types include:
 - a. Formal = At request of WCJ
 - b. QME reports
 - c. Treating physician reports
 - d. "Walk-ins" = usually reports handled on for attorneys walking in.
 - e. M = Mail-in, similar to walk-in.
6. **Disability category:** Ratings vary greatly depending upon the underlying disability. At this initial stage, the distribution of disabilities is different from the long-term distribution, most important, there is a higher concentration of spinal impairments in the new PDRS ratings. There are a large number of disability categories which makes it necessary to collapse disabilities to a limited number of categories. We did this along the lines of major categories with two special cases.

Group 1: wrist, hands, and fingers

- a. Group 2: all other upper extremity
- b. Group 3: lower extremity
- c. Group 4: spine
- d. Group 6: psychiatric
- e. Group 9: all other

Psychiatric cases were few, but they represent a major change between schedules. (Vision impairments might, category 5, were examined in the previous work, however they were very infrequent and in the future will be collapsed into the "all other" group.

7. **Date from injury to rating:** Previous work has shown that as the time between injury and rating increases, the average rating increases. Consequently, we broke the time from injury to rating into 100 day increments and matched on this criterion.
8. **Multiple disabilities:** This was the most difficult criterion to design. Not surprisingly, multiple disability cases receive much higher ratings on average than single disability cases. But, the listing of multiple impairments will be more frequent under the 2005 schedule because of the design of the AMA process. Consider spinal impairments. The pre-2005 schedule had only one category. The AMA process allows one to assign at least 3 different impairments (lumbar, thoracic, and cervical) to a spine disability. I decided that we would define multiple impairments as those where the impairments involved two or more of the 7 groups listed above. That is, if two impairments were listed for the lower extremity, they were treated as a single impairment case. An impairment to the lower extremity and upper extremity would be treated as a multiple case. Also, because the number of combinations created the potential for very small cell sizes or a failure to match, I defined multiple impairment on just as a dichotomous choice. This means that the primary impairment was taken as the impairment category for matching and then the additional requirement of multiple or single impairment was required. That is, a primary back impairment with a lower extremity impairment and a primary back impairment with an upper extremity impairment were both treated as a multiple back impairment.

After creating these specific cells, we failed to match the new PD rating to a comparison group in only one case. In a small number of cases (16), the comparison group had fewer than 30 pre-2005 ratings.

Apportionment: Apportionment to causation was introduced as part of the SB-899 reform package. Apportionment is identified by inclusion of the percentage apportioned to the current case (when less than 100%). This indication appeared in 11.0% of cases. We are not positive at this stage whether all DEU raters adhere to this format. We have had discussions with the DEU about being sure that this format is standardized for future ratings. At this stage, the 11.0% figure can be thought of as a lower bound estimate.

[

TECHNICAL CALCULATIONS

Adjusting for the Maturity of the Observed Cases

A difference in the average age of the cases (time from date of injury to date of rating) can affect the observed average rating. Experience teaches us that the longer the time from date of injury to date of rating, the higher the rating is likely to be. The average rating of cases in the RAND study that were rated more than two years after date of injury was about 1.25 times the average rating of cases rated less than two years after the date of injury. Under SB 899, a significant number of pre-2005 injury cases are subject to disability rating under the 2005 PDRS, so the available data are not confined to the younger cases but the older cases are still underrepresented. To compensate for the fact that the younger cases (rated closer to the date of injury) showing up in DEU ratings are likely less severe injuries compared to the cases in the wage-loss study, we can refine our method by adjusting the value used for the average whole person impairment. In place of average WPI, we would use an Age-Corrected WPI.

$$\text{Avg observed WPI} \times \frac{\text{Avg std in all cases}}{\text{Avg std in age-matched cases}} = \text{Age-corrected WPI}$$

where:

“Avg observed WPI” is the average Whole Person Impairment for the given type of injury in the cases observed under the 2005PDRS,

“Avg std in all cases” is the average standard disability rating in all the cases in the database of cases rated under the pre-2005 PDRS,

“Avg std in age-matched cases” is the average standard disability rating in a set of cases rated under the pre-2005 PDRS that is weighted to the same age distribution as the set of cases observed under the 2005 PDRS, using ages grouped in increments of 100 days.

This age-correction calculation will not be necessary after the 2006 revision of the PDRS if the fully-matured cases are normally represented by the time data is collected for later revisions.

Multi-State Survey of Awards for Two Example Cases

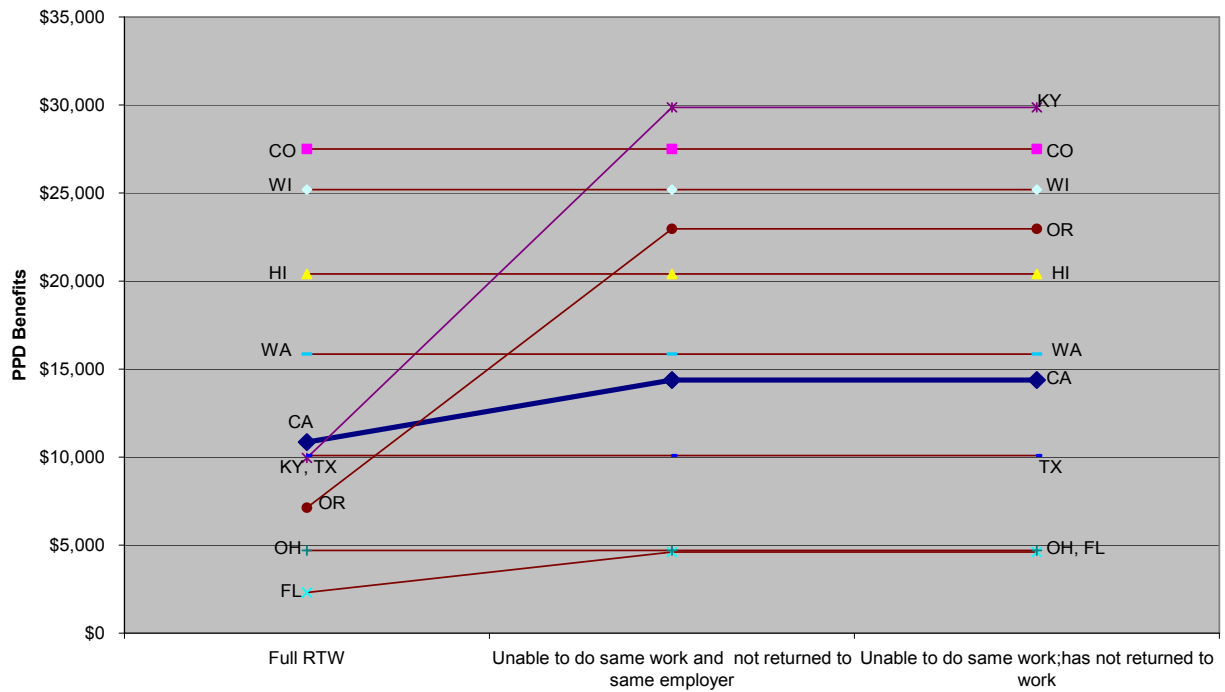
In order to estimate how California now compares to other jurisdictions in providing permanent disability benefits to injured workers, CHSWC staff conducted a survey of nine states, Colorado, Florida, Hawaii, Kentucky, Ohio, Oregon, Texas, Washington, and Wisconsin. These states were chosen in order to compare California to a sample of states that use various editions of the *AMA Guides* such as Kentucky, Ohio, and Hawaii (5th edition), Texas (4th edition) and Colorado (3rd edition revised), as well as to states that use their own guides for rating permanent disabilities such as Florida, Wisconsin, Washington, and Oregon. In addition, CHSWC wanted to have some geographic representation in the survey.

Each respondent was asked to calculate permanent disability benefits based on two hypothetical examples provided by CHSWC to illustrate a “typical” spinal impairment and a “severe” spinal impairment under varying return-to-work scenarios. (See the final page of this attachment for the hypothetical case descriptions.) Spinal injuries were chosen because these are the most common type of permanent disability award. The hypothetical impairment ratings were Lumbar Category III with few complications and Lumbar Category V with maximal complications. These were selected to represent a fairly typical spinal impairment and the most severe spinal impairment ratable by the Diagnosis-Related Estimate (DRE) method of the *AMA Guides* 5th edition. Respondents from states that do not use the 5th edition were asked to make their best guess as to how the cases would be rated in their states.

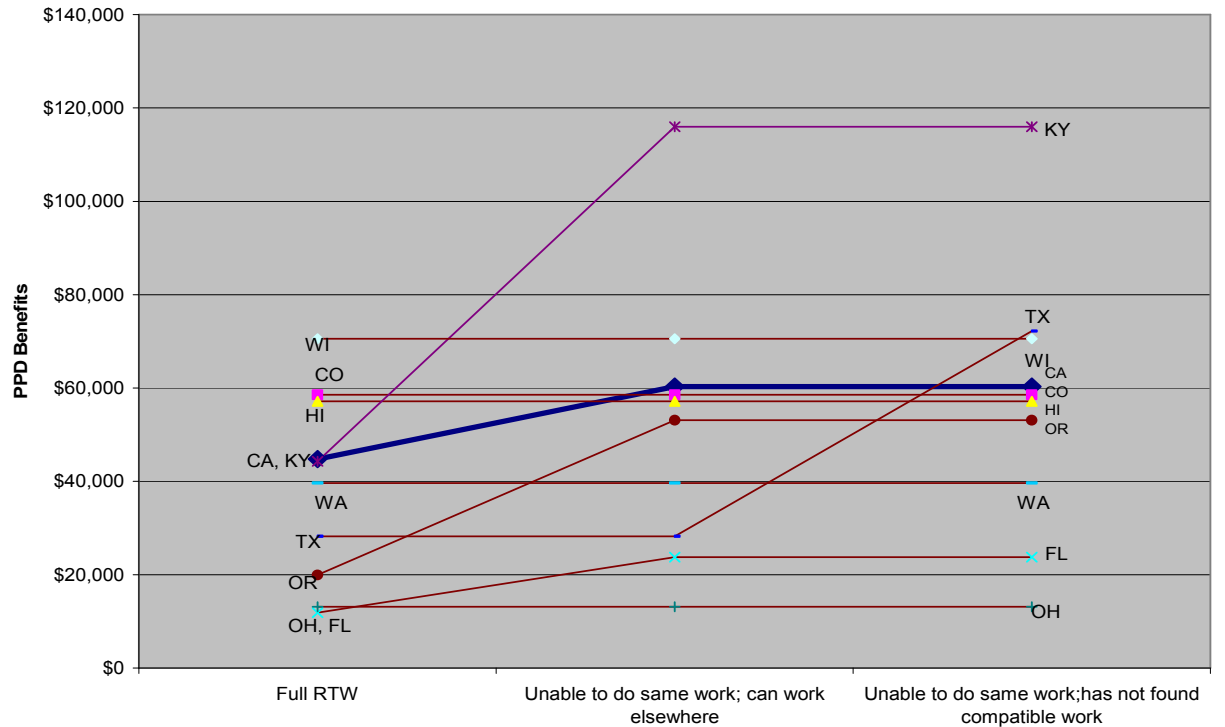
To capture different states’ handling of RTW adjustments, four scenarios were presented ranging from full RTW at the same job with the same employer and same or similar pay to inability to find any work within residual capacities. Florida, Kentucky, and Oregon differentiate according to RTW status in both examples, while Texas differentiates only for the more severe of the two examples.

This limited survey is intended only to convey a general illustration of how California compares with other states. The ranking could be different with different types of injuries, different age or different earnings assumptions, or different methods of comparison. A comprehensive comparison is beyond the scope of this survey. While these estimates offer a partial answer to the question of how California compares with other states, they do not take all possible variables into account and they do not take into account the differences in cost of living among the states.

PPD Benefits: Lumbar III ("typical")



PPD Benefits: Lumbar V ("severe")



QUESTIONNAIRE FOR CHSWC MULTI-STATE SURVEY OF P.D. VALUES

Please estimate the permanent disability benefits payable for two hypothetical injuries, using varying assumptions about return to work, for an injury occurring in January 2006.

Assume wages of \$480 per week at time of injury.

Two levels of severity should be evaluated, one typical and one severe:

- Typical: 10% whole person impairment for DRE Lumbar Category III, per AMA 5th edition:
 - radicular pain and numbness in a dermatomal distribution, loss of reflexes and loss of muscle mass below the knee compared to contralateral side, abnormal EMG, radiographic evidence of unilateral L4-5 nerve root impingement.
 - symptoms minimally impact activities of daily living (ADL) and light activities, but standing and walking for more than one hour is precluded by increasing fatigue, pain and fasciculations, requiring an hour of non-weightbearing before returning to walking or standing.
 - Assume any other rating criteria applicable in an individual state that appear to be consistent with the minimal impact on ADL but the preclusion of prolonged weightbearing.
- Severe: 28% whole person impairment for DRE Lumbar Category V, per AMA 5th edition.
 - persistent radiculopathy after single surgical fusion of L4-L5, objective findings as in DRE Category III example above.
 - major interference with ADL: unable to find a position of comfort to perform sustained activity whether seated or standing; sleep is interrupted.
 - Assume any other rating criteria or add-on ratings applicable in an individual state that appear to be consistent with maximal impact of the impairment on the patient's ADL and on activities of work, but do not add multiple impairments involving other chapters besides the spine.

Return to work status may be divided in several ways if it is considered at all. Any state probably uses fewer than four groupings, so please pick the one(s) that come(s) closest and make a note of any further assumptions required to fit your state's criteria.

- RTW, same work, same employer, same or similar pay
- Medically able to RTW same work, but not rehired by employer at similar pay
- Unable to do same work and not rehired by employer at similar pay.
- Unable to do same work, has not found work within residual capabilities.

For states that consider occupation, use janitor.

For states that consider age, use 42.

For states that consider education, use High School graduate.

ATTACHMENT H

Illustrations of Adjustment Factors with Public Policy Options

In this section, empirical data is used to calculate adjustment factors using the methods recommended in the paper. The illustrations are completed for the most common types of injuries, those for which sufficient data was available at press time. It is expected that additional data will rapidly accumulate to permit calculation of adjustment factors for more types of injuries so that over 95% of all cases would be covered by injury-specific adjustment factors. The remaining types would use an overall average factor.

While the paper does not recommend a particular choice for the overall level of average ratings, the three options mentioned in the paper are illustrated, and others are possible.

Type of Injury (Impairment # in 2005 PDRS)	Average Earnings Loss %	Average WPI %	Unmodified Adjustment Factor	Public Policy Option (three options shown)	Final Adjustment Factor
Spine (15.xx.xx.xx)	18.45	9.27	1.99	1.09	2.17
				1.00	1.99
				0.55	1.09
Shoulder (16.02.xx.xx)	13.08	4.87	2.69	1.09	2.93
				1.00	2.69
				0.55	1.48
Elbow (16.03.xx.xx)	6.23			1.09	
				1.00	
				0.55	
Wrist (16.04.xx.xx)	10.84	4.19	2.59	1.09	2.82
				1.00	2.59
				0.55	1.42
Hand/Fingers (16.05.xx.xx – 16.06.xx.xx)	4.89	3.11	1.57	1.09	1.71
				1.00	1.57
				0.55	0.86
Arm – grip/pinch strength (16.01.04.00)	8.73	7.54	1.15	1.09	
				1.00	
				0.55	
Arm – other (16.01.01.01 – 16.01.03.00 and 16.01.05.00)	17.98			1.09	
				1.00	
				0.55	
Hip (17.03.xx.xx)	21.10			1.09	
				1.00	
				0.55	
Knee (17.05.xx.xx)	9.31	4.31	2.16	1.09	2.35
				1.00	2.16
				0.55	1.19
Ankle and Foot (17.07.xx.xx – 17.08.xx.xx)	9.28			1.09	
				1.00	
				0.55	
Toes (17.09.xx.xx)	9.09			1.09	
				1.00	
				0.55	

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Type of Injury (Impairment # in 2005 PDRS)	Average Earnings Loss %	Average WPI %	Unmodified Adjustment Factor	Public Policy Option (three options shown)	Final Adjustment Factor
Gen. lower ext. (17.01.xx.xx – 17.02..01.00 and 17.04.10.00 and 17.06.10.00)					
Hearing (11.01.xx.xx)					
Gen. abdominal (06.xx.xx.xx)					
Heart (03.xx.xx.xx – 04.03.02.00)					
Vision (12.xx.xx.xx)					
Lung (04.04.00.00 – 05.xx.xx.xx)					
PT Head (13.01.00.00 and 13.03.00.00)					
Other					
Psyche (14.01.xx.xx)	49.01	22.6	1.45 (see text for derivation of psyche FEC)	1.09 1.00 0.55	1.45

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